

REMARKS:

Claims 13-15 and 29 have been objected to and claims 19 and 22 rejected under 35 U.S.C. §112, second paragraph, for informalities and lack of antecedents. The claims have been amended to overcome these objections and rejections and to correct similar informalities found in other claims.

Claims 7-32 have been rejected over cited prior art under 35 U.S.C. §102(b) and 35 U.S.C. §103(a). Claims 7, 8, 13, 16, 20-23, 26 and 29 have been rejected under 35 U.S.C. §102(b), while claims 7-19, 24-25, 27-28, 30-32 have been rejected under 35 U.S.C. §103(a). These rejections are respectfully traversed. These rejections are discussed separately, referring to each by the respectively numbered paragraph of the office action.

The 102(b) Rejections:

REJECTION #6: Claims 7, 8, 13 and 26 have been rejected as anticipated by Perfect U.S. Patent No. 4,085,845. Perfect discloses a tray 1 having a depression 5 for shipping, and supporting while in use, a stack of mixing trays 14, with the depression 5 having sidewalls to restrain the mixing trays in a predetermined orientation. The Examiner equates a mixing tray, as described by Perfect, to a set-up tray as described in the present application. The tray 1 also has a plurality of depressions 26 and 27 with sidewalls for holding vials 12 and 13. The Examiner characterizes the depressions 26 and 27 as “for holding orthodontic appliances 12 & 13 in the same orientation”, and adds “Perfect is capable of use in the claimed manner”. This is an improper characterization and an incorrect and unjustified conclusion.

First of all, it should be pointed out that the Examiner’s observations regarding functional language, with which it is possible to use to define structure, but which cannot distinguish over prior art where it does not define distinguishing structure, does not prohibit the use of functional language that defines the properties or capabilities of the structure itself. As the Examiner recognizes, the test is whether the reference “is capable of” use in the claimed manner. Secondly, it is assumed that the Examiner does not seriously contend that the vials 12 and 13 of Perfect are “orthodontic appliances” which, of course, is clearly wrong. Rather it is assumed that the Examiner means that the

depressions 26 and 27 have structure that is capable of “holding a plurality of orthodontic appliances, each in the same predetermined fixed orientation on the organizer tray”.

The depressions 26 and 27 in the tray 1 of Perfect each have an “upper shallow portion” and a “lower deep portion” that require the axes of the cylindrical vials 12 and 13 to be aligned in the recesses with their tops at one end and their bottoms at the other end. These vials can otherwise rotate in their axes in the depressions in an infinite number of angular orientations about their axes. But more interestingly, the structure of the depressions 26 and 27 would do nothing to hold an orthodontic bracket or any other orthodontic appliance in a fixed orientation, let alone any predetermined orientation, whether for transfer to a set-up tray or for any other purpose. As such, Perfect cannot possibly anticipate claim 7 under 35 U.S.C. §102(b).

Regarding claim 8, as with claim 7, the structure of depressions 26 and 27 of Perfect do not have the claimed geometric or structural property of being configured to receive a package of appliances. Accordingly, Perfect cannot anticipate claim 8 under 35 U.S.C. §102(b).

Claim 13 expressly recites “at least one of each of a plurality of orthodontic appliances, of a set that includes appliances configured for different teeth of a patient held [etc.]”. Perfect cannot be seriously said to disclose orthodontic appliances. This element is totally missing from Perfect. Therefore, Perfect cannot anticipate claim 13 under 35 U.S.C. §102(b).

As for claim 26, it recites “a first plurality of holders arranged in a first orientation relative to the set-up tray support and a second plurality of holders arranged in a second orientation relative to the set-up tray support that differs from first orientation.” Whatever the Examiner defines as the orientations of holders 26 and 27 in the Perfect reference, the orientations would be the same for both such depressions. Therefore, Perfect cannot anticipate claim 26 under 35 U.S.C. §102(b).

REJECTION #7: Claim 7 has also been rejected as anticipated by Brown U.S. Patent No. 4,191,291. Brown discloses a Dental Organizer and Container 7 having a recess 40 configured to hold a rectangular dental tray 48, and has a number of round holes 32 in its top surface to hold various dental tools in any of an infinite number of orientations about a vertical axis, plus a number of raised cylindrical posts 36 on which to support rubber dam clamps in any of an infinite number of unspecified orientations. The Examiner asserts that the holes 32 and posts 36 have “structure

capable of holding unspecified orthodontic appliances in a restricted orientation”, and concludes that “Brown is fully capable of functioning as claimed.”

By referring to “unspecified orthodontic appliances” the Examiner is apparently referring to the fact that Brown makes no mention of “orthodontic appliances” whatsoever. How Brown then goes on to disclose how the holes 32 and posts 36 have structure capable of holding a plurality of these unspecified and unmentioned orthodontic appliances, the Examiner does not say. Brown with its deficiencies is incapable of anticipating claim 7 under 35 U.S.C. §102(b).

REJECTION #8: Claims 16 and 20-23 have been rejected as anticipated by Bozman U.S. Patent No. 5,759,028. Bozman discloses a bracket container that stores a plurality of the different orthodontic brackets of a set of brackets where each bracket differs from each other bracket of the set and is configured to fit on one and only one of the different teeth of a patient to make up an orthodontic brace to treat an individual patient. The package of brackets of Bozman is what an orthodontist would order in lieu of using the invention of Applicants to assemble a set of brackets that form a brace to treat an individual patient.

Claim 16 expressly recites “a plurality of substantially identical orthodontic appliances supported on the carrier, each appliance configured for placement on the same one, and only one, of the teeth of a patient.” Applicants claims that the orthodontic appliances are substantially identical. Bozman discloses a set of appliances that are all different. Applicants claims the structural limitation that each appliance of the plurality is configured for placement on the same one, and only one, of the teeth of the patient. This limitation refers to how the appliance is configured, not how it is used. The configuration remains the same regardless of how the appliance is actually used. With Bozman, each appliance must necessarily be configured to fit a different one of the teeth of a patient. Accordingly, Bozman cannot anticipate claim 16 under 35 U.S.C. §102(b).

Because Bozman fails to anticipate claim 16, it similarly fails to anticipate dependent claims 20-23.

REJECTION #9: Claim 29 has been rejected as anticipated by James U.S. Patent No. 5,221,202. Like claim 16 discussed above, claim 29 also relates to an appliance package that includes a plurality of orthodontic appliances (brackets) of substantially identical configurations. In

this respect, James lacks the main defect of Bolzman, discussed above, in that James states that: “Depending on the intent of the manufacturer, the brackets contained within a multi-compartment container may either be identical or different from one another.” That said, James lacks an “elongated downwardly extending recess formed in [the upwardly facing surface of the base of the elongated carrier, and having] a plurality of cavities therein arranged on a longitudinal centerline of the elongated recess, ...” James arguably has “an elongated carrier having a base with planar upwardly facing surface having ...a plurality of cavities therein arranged on a longitudinal centerline”, but not “an elongated carrier having a base with planar upwardly facing surface having an elongated downwardly extending recess formed therein; the recess having a plurality of cavities therein arranged on a longitudinal centerline of the elongated recess ...”. This rejection is made under 35 U.S.C. §102(b), which requires that each and every element of the claim be disclosed in the reference. James fails to disclose each and every element of claim 29. Accordingly, James fails to anticipate claim 29 under 35 U.S.C. §102(b).

For the reasons stated above, none of the rejections made under 35 U.S.C. §102(b) meets the criteria for rejections under 35 U.S.C. §102(b) that each and every claimed feature be disclosed in the reference. Claims 20-23, 26 and 29 having only been rejected under 35 U.S.C. §102(b) as discussed above, are accordingly allowable and should be allowed. The remaining claims having also been rejected under 35 U.S.C. §103(a) are patentable for the reasons stated below.

The 103(a) Rejections:

REJECTION #10: Claims 7-10, 13, 14, 25 and 28 have been rejected as being unpatentable over Chester et al. U.S. Patent No. 5,350,059 in view of Georgakis U.S. Patent No. 4,898,276. Chester et al. is cited as disclosing a plurality of holders for holding orthodontic appliances in a restricted orientation and, while acknowledging the use of a set-up tray, does not support or in any way restrict the orientation of the set-up tray. Georgakis, on the other hand is cited as teaching a set-up tray with structure that restrains it relative to an organizer tray for positioning orthodontic brackets thereon, but there is no structure to restrict the orientation of the orthodontic brackets for transfer to the set-up tray. So neither Chester et al. nor Georgakis et al. provide or suggest structure capable of restricting or otherwise maintaining the orientation of orthodontic appliances on their

holders in the same orientation that they have upon transfer to the set-up tray. Therefore, putting Chester et al. and Georgakis et al. together do not provide the claimed relationship of the set-up tray and appliance orientation maintaining structure without adding a further teaching not found in the prior art, and which comes only from the teachings of the Applicants. Accordingly, the combination of Chester et al. and Georgakis et al. fail to provide a *prima face* case of the obviousness of the invention claimed.

REJECTION #11: Dependent claims 11 and 12 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Brown, as applied to claim 7, in view of Leigh U.S. Patent No. 4,153,160. As stated above, Brown makes no mention of “orthodontic appliances” whatsoever and discloses only structure in the form of round holes and posts capable of only holding a plurality of dental tools or supplies in an infinite number of nominally limited orientations. Merely adding the disclosure of Leigh to provide the compartment to the combination of claim 7, which is otherwise patentable, does not establish that claims 11 or 12 are obvious in their entirety. Accordingly, claims 11 and 12 should be allowed.

REJECTION #12: Claims 15 and 27, which are both dependent on claim 14, are rejected under 35 U.S.C. §103(a) as unpatentable over Chester and Georgakis, as applied to claim 14, further in view of Roberts U.S. Patent No. 622,396. As set forth above, the combination of Chester et al. and Georgakis et al. is insufficient to render claim 14 unpatentable. Therefore, adding the teaching of a compartment of Roberts does not render claim 15 unpatentable. As for claim 27, none of the applied references teaches having two sets of holders with structure that maintains two different orientations for appliances held thereon in relation to the orientations of respective areas on a set-up tray. Accordingly, claims 15 and 27 are patentable.

REJECTION #13: Claim 30, which is dependent on claim 29, has been rejected under 35 U.S.C. §103(a) as unpatentable over James, as applied to claim 29, in view of Dixon et al. U.S. Patent No. 6,482,003. As was set forth above, James does not make an effective case for anticipation of claim 29. Dixon et al. does not cure the deficiencies of James, so the combination of James et al and Dixon does not render claim 29 obvious.

REJECTION #14: Claims 31, 16-19 and 24 have been rejected under 35 U.S.C. §103(a) as being unpatentable over James, as applied to claim 29, in view of Bozman. Claim 31 is dependent on independent claim 29 and claims 17-19 and 24 are dependent on independent claim 16. James was applied to claim 29 but not to claim 16. Bozman was applied to claim 16 but not to claim 29. Nonetheless, for the reasons stated above regarding above with respect to each of these references, neither reference discloses the claimed cavity structure. Further, since the independent claims 16 and 29 are allowable, claims 16-19, 24 and 29 should be allowable.

REJECTION #15: Claim 32 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Bozman in view of Dixon. Claim 32 is dependent on claims 21 and 16. As stated above, the claims from which claim 32 depends are patentable. Therefore, claim 32 is patentable.

Accordingly, the claims are patentable and should be allowed. An early allowance is therefore respectfully requested.

If any additional fees are necessary to complete this communication the Commissioner is hereby authorized to charge same to Deposit Account No. 23-3000.

Respectfully submitted,

WOOD, HERRON & EVANS, L.L.P.

BY /Joseph R. Jordan/
Joseph R. Jordan, Reg. No. 25,686

2700 Carew Tower
Cincinnati, OH 45202
(513) 241-2324
(513) 241-6234 (Facsimile)